CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/W.No.12/KRIDL/CSR-05/030i/CEMENT/2016-17 Date: 06.05.2016

TEST REPORT ON CEMENT

* CUSTOMER	:	**Asst. Executive Engineer**, Shettyhalli Sub Division, BBMP, Bangalore.
*AGENCY	:	**Technical Manager (West),** KRIDL, Bangalore.
*NAME OF THE WORK	:	Emergency Reserve Fund (Desilting and construction of RCC drain 1st cross Abbigere village) in Ward No.12 of Shettyhalli Sub Division, BBMP, Bangalore.
*REFERENCE	:	AEE/SSD/PR/114/2016-17 Dated: 04.05.2016
SAMPLE ID	:	Cement
SAMPLE RECEIVED ON	:	04.05.2016
PERIOD OF TESTING	:	04.05.2016 to 06.05.2016

The results of the tests conducted on the cement sample are as follows:

Sl. No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-2013
1	Standard Consistency	IS-4031 (Part -4) 1988(RA-2009)	30.00 %	-
2	a) Initial Setting Time	IS-4031 (Part -5) 1988(RA-2009)	160 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5) 1988(RA-2009)	490 Minutes	Not More than 600 Minutes
3	Soundness by Le Chartlier Method	IS-4031 (Part-3) 1988(RA-2009)	1 mm	Not more than 10mm

*Information is furnished by the Customer/Representative.

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VISHWANATH C.
Quality Manager

A/C-12

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
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#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

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Job No.: CTCE/BBMP/W.No.12/KRIDL/CSR-05/030i/SAND-Gradation/2016-17 : 06.05.2016

TEST REPORT ON DETERMINATION GRADATION OF FINE AGGREGATES

* Customer	: **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	: **Technical Manager (West),** KRIDL, Bangalore.
* Name of Work	: Emergency Reserve Fund (Desilting and construction of RCC drain 1st cross Abbigere village) in Ward No.12 of Shettyhalli Sub Division, BBMP, Bangalore.
Reference	: AEE/SSD/PR/114/2016-17 Dated: 04.05.2016
Technical Reference	: IS : 2386 Part 1 - 1963 RA-2007
Sample ID	: Fine Aggregates
Sample Received on	: 04.05.2016
Date of Testing	: 06.05.2016

Total Wt. of Aggregates in gms **1000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA- 2007)			
		Zone-I	Zone-II	Zone-III	Zone-IV
10	100	100	100	100	100
4.75	96.50	90-100	90-100	90-100	95-100
2.36	78.00	60-95	75-100	85-100	95-100
1.18	58.20	30-70	55-90	75-100	90-100
600 Micron	30.70	15-34	35-59	60-79	80-100
300 Micron	15.70	5-20	8-30	12-40	15-50
150 Micron	7.50	0-10	0-10	0-10	0-15

* Information is furnished by the Customer/Representative

Remarks : This sample is under Zone-I specific limits.

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VISHWANATH C.
Quality Manager

AE-II
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Job No.: CTCE/BBMP/W.No.12/KRIDL/CSR-05/030i/AGG/GR/2016-17 : 06.05.2016

TEST REPORT ON DETERMINATION GRADATION OF COARSE AGGREGATES

* Customer : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

* Agency : **Technical Manager (West),** KRIDL, Bangalore.

* Name of Work : Emergency Reserve Fund (Desilting and construction of RCC drain 1st cross Abbigere village) in Ward No.12 of Shettyhalli Sub Division, BBMP, Bangalore.

Reference : AEE/SSD/PR/114/2016-17 Dated: 04.05.2016

Technical Reference : IS : 2386 Part 1 -1963 RA-2007

Sample ID : Coarse Aggregates (40mm)

Sample Received on : 04.05.2016

Date of Testing : 06.05.2016

Total Wt. of Aggregates in gms= **5000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA- 2007)	
		Graded	Single Sized
80	100	100	-
63	100	-	100
40	97.00	95-100	85-100
20	35.00	30-70	0-20
10	14.00	10-35	0-5
4.75	1.00	0-5	-

* Information is furnished by the Customer/Representative

Remarks : This sample is under Graded specific limits.

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VISHWANATH C.
Quality Manager

AC-12
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JAS-ANZ BSCIC ISO 9001 REGISTERED

Job No:. CTCE/BBMP/W.No.12/KRIDL /STEEL/2016-17

10.05.2016

TEST REPORT ON REINFORCEMENT STEEL

Customer	:	**Asst. Executive Engineer**, Shettyhalli Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
Name of the Work	:	Emergency Reserve Fund (Desilting and construction of RCC drain 1st cross Abbigere village) in Ward No.12 of Shettyhalli Sub Division, BBMP, Bangalore.
Reference	:	AEE/SSD/PR/114/2016-17 Dated: 04.05.2016
Date of Test	:	10.05.2016
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	8	0.40	510	552	13.15	O.K	O.K

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M/s. Civil-Tech Consultants & Engineers
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4th Block, Sha[illegible]apathinagara,
Basav[illegible]ar,
Ban[illegible].

AE-12

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Job No:. CTCE/BBMP/W.No.12/KRIDL /STEEL/2016-17 10.05.2016

TEST REPORT ON REINFORCEMENT STEEL

Customer	:	**Asst. Executive Engineer**, Shettyhalli Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
Name of the Work	:	Emergency Reserve Fund (Desilting and construction of RCC drain 1st cross Abbigere village) in Ward No.12 of Shettyhalli Sub Division, BBMP, Bangalore.
Reference	:	AEE/SSD/PR/114/2016-17 Dated: 04.05.2016
Date of Test	:	10.05.2016
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	10	0.62	513	556	13.20	O.K	O.K

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4th Block, Shakthiganapathinagara,
Basaveshwaranagar,
Bangalore-560079.

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Job No.: CTCE/BBMP/W.No.12/KRIDL/CSR-05/030i/CUBE/2016-17 13.06.2016

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

* Customer	: **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	: **Technical Manager (West),** KRIDL, Bangalore.
* Name of the work	: Emergency Reserve Fund (Desilting and construction of RCC drain 1st cross Abbigere village) in Ward No.12 of Shettyhalli Sub Division, BBMP, Bangalore.
* Reference	: AEE/SSD/PR/114/2016-17 Dated: 04.05.2016
* Sample ID	: RCC drain Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
* Grade of Concrete	: M_{20}
Compressive Strength as on	: 28th day
Sample Received on	: 13.06.2016

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	16.05.2016	13.06.2016	8.120	482.3	21.44
2	16.05.2016	13.06.2016	8.238	493.5	21.93
3	16.05.2016	13.06.2016	8.325	510.2	22.68

* Information is furnished by the Customer/Representative

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Quality Manager

KE-12
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Job No.: CTCE/BBMP/W.No.12/KRIDL/CSR-05/030i/CUBE/2016-17 16.06.2016

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

* Customer : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

* Agency : **Technical Manager (West),** KRIDL, Bangalore.

* Name of the work : Emergency Reserve Fund (Desilting and construction of RCC drain 1st cross Abbigere village) in Ward No.12 of Shettyhalli Sub Division, BBMP, Bangalore.

* Reference : AEE/SSD/PR/114/2016-17 Dated: 04.05.2016

* Sample ID : RCC drain Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

* Grade of Concrete : M_{20}

Compressive Strength as on : 28th day

Sample Received on : 16.06.2016

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	19.05.2016	16.06.2016	8.198	485.5	21.58
2	19.05.2016	16.06.2016	8.225	502.3	22.32
3	19.05.2016	16.06.2016	8.310	510.2	22.68

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Job No.: CTCE/BBMP/W.No.12/KRIDL/CSR-05/030i/Precast slab/2016-17 26.05.2016

TEST REPORT CONCRETE CORE (PRECAST SLAB)

* Name of Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Name of Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of work	:	Emergency Reserve Fund (Desilting and construction of RCC drain 1st cross Abbigere village) in Ward No.12 of Shettyhalli Sub Division, BBMP, Bangalore.
* Reference	:	AEE/SSD/PR/114/2016-17 Dated: 04.05.2016
Techinical Reference	:	IS:516-1959 (Reaffirmed 2008), SP-24:1983.
Sample ID	:	Precast slab
Sample Received on	:	20.05.2016
Date of Testing	:	26.05.2016

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	79.00	0.390	2514.25	1.58	0.955	30.20	15.38	16.61	17.40	21.75
2	50.00	80.00	0.398	2533.75	1.60	0.957	32.80	16.70	18.04	17.26	21.58
3	50.00	81.00	0.404	2540.19	1.62	0.959	33.90	17.27	18.65	17.88	22.35

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